Message

From: Dunn, John [Dunn.John@epa.gov]
Sent: 3/17/2022 11:21:43 AM
To: Weekley, Erin [weekley.erin@epa.gov]; Bednar, Candace [Bednar.Candace@epa.gov]
Subject: RE: FW: Construction Engineering Quality Questions re AltEn/Mead Nebraska Site Solid Waste Containment Polymer Concrete Cover

Ex. 5 Deliberative Process (DP)

--JD

From: Weekley, Erin <weekley.erin@epa.gov>
Sent: Wednesday, March 16, 2022 3:15 PM
To: Dunn, John <Dunn.John@epa.gov>; Bednar, Candace <Bednar.Candace@epa.gov>
Subject: RE: FW: Construction Engineering Quality Questions re AltEn/Mead Nebraska Site Solid Waste Containment Polymer Concrete Cover

Ex. 5 AC/DP

Erin Weekley
Air and Crosscutting Issues Branch Chief
Office of Regional Counsel
U.S. Environmental Protection Agency, Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219
office (913) 551-7095
work cell (816) 274-1107

From: Weekley, Erin
Sent: Wednesday, March 16, 2022 1:58 PM
To: Dunn, John <Dunn.John@epa.gov>; Bednar, Candace <Bednar.Candace@epa.gov>
Subject: RE: FW: Construction Engineering Quality Questions re AltEn/Mead Nebraska Site Solid Waste Containment Polymer Concrete Cover

Ex. 5 Deliberative Process (DP)

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From: Dunn, John <Dunn.John@epa.gov>
Sent: Wednesday, March 16, 2022 5:50 AM
To: Weekley, Erin <weekley.erin@epa.gov>; Bednar, Candace <Bednar.Candace@epa.gov>
Subject: RE: FW: Construction Engineering Quality Questions re AltEn/Mead Nebraska Site Solid Waste Containment Polymer Concrete Cover

Ex. 5 Deliberative Process (DP)

From: Weekley, Erin <weekley.erin@epa.gov>
Sent: Tuesday, March 15, 2022 3:50 PM
To: Bednar, Candace <Bednar.Candace@epa.gov>; Dunn, John <Dunn.John@epa.gov>
Subject: RE: FW: Construction Engineering Quality Questions re AltEn/Mead Nebraska Site Solid Waste Containment Polymer Concrete Cover

Ex. 5 AC/DP

Thanks,
Erin

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From: Bednar, Candace <Bednar.Candace@epa.gov>
Sent: Friday, March 11, 2022 2:40 PM
To: Weekley, Erin <weekley.erin@epa.gov>; Dunn, John <Dunn.John@epa.gov>
Subject: FW: Construction Engineering Quality Questions re AltEn/Mead Nebraska Site Solid Waste Containment Polymer Concrete Cover

From: Ex. 6 Personal Privacy (PP)
Sent: Thursday, March 10, 2022 4:25 PM
To: thomas.buell@nebraska.gov; Bednar, Candace <Bednar.Candace@epa.gov>; Tate, Michael <tate.michael@epa.gov>
Cc: ndee.moreinfo@nebraska.gov; jwu-smart <jwu-smart@unl.edu>; 'Wilbeck, Jon' <jon.wilbeck@nebraska.gov>; Schalles, John F <JohnSchalles@creighton.edu>; 'Al Davis' Ex. 6 Personal Privacy (PP) 'Chris Dunker' <CDunker@journalstar.com>; 'George Cunningham' Ex. 6 Personal Privacy (PP) ; jjoakim@co.saunders.ne.us; phammel@nebraskaexaminer.com
Subject: Construction Engineering Quality Questions re AltEn/Mead Nebraska Site Solid Waste Containment Polymer Concrete Cover

Tom &c

On Wednesday, March 2, 2022, Mr. Tom Buell of NDEE wrote NewFields and AFRG about NDEE's inspection of the newly installed polymer mix (Posi-shell) cap coating over the consolidated pesticide-contaminated wet cake pile at the AltEn site in Mead NE. The NDEE inspectors had reported discovery of water impoundments/ponding on top of the pile in various locations, so AFRG was asked to respond to some questions regarding the integrity of the barrier coating and the source of the water now appearing. NDEE confirmed that due to lack of precipitation during and after the installation time period, it was unlikely that the standing water came from uncontaminated rainfall.

Specifically, NDEE, AFRG's environmental cleanup contractor NewFields to respond to the following concerns:

1) Possible causes of the ponded liquid,
2) AFRG's understanding of the effects of the ponded liquid on the integrity of the posi-shell application,
3) Information on any testing performed by AFRG, the applicator, or the manufacturer of posi-shell, including integrity testing, batch mixes, etc., and,
4) Actions AFRG deemed necessary to be taken to eliminate the ponded liquid and ensure that stormwater runoff does not have contact with the wet cake.

On March 8, researchers from Creighton University also confirmed by drone flight camera inspections that the cap had these apparent significant discontinuities as seen in concavities containing dark liquids in several areas of the new cap on top of the pile.

On March 9, 2022, NewFields emailed their response to the four issues raised by NDEE as follows:

1) Ponding existed before the Posi-shell was applied. The polymer sank to the bottom of the ponds to settle on the surface of the wet cake solids.
2) The Posi-shell vendor advised that standing water will delay the curing time but the polymer will still prevent stormwater to contact the wet cake. The ponded water will either seep through the shell into the wet cake or evaporate.
3) Testing has been done per Quality Control procedures conducted by the vendor. These data will be made available in a final construction completion report for the site.
4) No actions are needed to prevent runoff of contact stormwater. Accumulated water is not in contact with wet cake. Also, pumping the water from the low areas would risk damaging the Posi-shell and integrity of the cover.

I believe NDEE has not had time to provide their technical review and comments to AFRG's response. In this email I am offering my own engineering/technical review comments to NDEE and others in hope that they might find them useful forAFRG and NewFields guidance in this critical matter of cover integrity and best practices to prevent stormwater runoff pollution by the problem pesticides:

1) Ponding of water on the wet cake pile prior to applying the polymer confirms that this water has already been in contact with the contaminated wet cake (and may even have been expressed from the wet cake by the application of the Posi-shell). AFRG needs to show what BMP is in place to collect and treat this contaminated water and prevent it from running off the pile.
2) It is clearly not acceptable construction quality to allow an undefined delay in curing of the Posi-shell to take place, especially absent any strength test and dimensional data of the layer applied under water. NDEE should

ask for a detailed description of the vendor's underwater installation construction means and methods, including acceptance testing criteria. In absence of this engineering information, NDEE should require that each of these areas be repaired and retested as soon as possible so that the Posi-shell recently installed under water will not allow the ponded water to seep back through into the wet cake as NewFields asserts.

3) NDEE has no reason to wait for the QC/QC test results. In fact, as is universally done for all such construction testing, NewFields should have requested submittal of the vendor's QC and Acceptance Test procedures by ASTM number and scope for their own and NDEE's review for information only. As the tests have reportedly been done, the test results assuring the integrity of the as-built cover should be made available at once. In addition, NDEE will want to ask why pumping water from the low areas risks damaging this cover's integrity, given AFRG's assertions of the durability of this cover to prevent stormwater penetration and leaching.

Please let me know if you have any questions or comments.

Regards,
Jim
James Boucher, P.E. (Ret'd)

Ex. 6 Personal Privacy (PP)